

Lane Construction Corporation)	DEPARTMENTAL
Waldo County)	FINDINGS OF FACT AND ORDER
Prospect, Maine)	AIR EMISSION LICENSE
A-49-71-F-N)	AFTER-THE-FACT

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Lane Construction (Lane), located in Prospect, Maine has applied to renew their Air Emission License, permitting the operation of their hot mix asphalt plant, concrete batch plant and their crushed stone and gravel facility. This is a lapsed license, which expired on January 11, 1999.

B. Emission Equipment

Asphalt Plant:

<u>Equipment</u>	<u>Process Rate (tons/hour)</u>	<u>Design Capacity Firing Rate</u>	<u>Control Devices</u>	<u>Stack ID</u>	<u>Date of Manufacture</u>
Rotary Dryer	240	96.0 MMBtu/hr, 700 gal/hr,#2 fuel oil (0.5% S) and specification waste oil (0.7% S)	baghouse	28	Pre-1973

Concrete Plant

<u>Equipment</u>	<u>Process Rate (cubic yards/hour)</u>	<u>Control Devices</u>	<u>Stack ID</u>
Concrete Batch Plant	100	Baghouse	3

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Rock Crushers:

<u>Designation</u>	<u>Powered</u>	<u>Process Rate (tons/hour)</u>	<u>Control Device</u>	<u>Date of Manufacture</u>
Secondary	Diesel	175	Spray Nozzle	Pre-1973

Diesel Units:

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Diesel Drive	2.1 MMBtu/hr	15 gal/hr, 0.5%S	300 hp
Genset #1	1.7 MMBtu/hr	12.4 gal/hr, 0.5%S	242 hp

C. Application Classification

The application for Lane does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only.

II. BEST PRACTICAL TREATMENT

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

the existing state of technology
the effectiveness of available alternatives for reducing emissions from the source being considered; and
the economic feasibility for the type of establishment involved.

A. Asphalt Plant

The rotary dryer was manufactured prior to 1973 and is therefore not subject to EPA New Source Performance Standards (NSPS) Subject I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

The rotary dryer fires #2 fuel oil (0.5% sulfur maximum) and specification waste oil (0.7% sulfur maximum). Fuel use shall not exceed 750,000 gal/year based on a 12 month rolling total.

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To meet the requirements of BPT for the control of particulate matter (PM) emissions from the asphalt plant rotary dryer shall vent to a baghouse. Opacity from the asphalt batch plant baghouse is limited to no greater than 20% on a 6 minute block average basis, except for no more than 2, six minute block averages in a continuous 3 hour period.

Based on the above hot mix asphalt plant process rate, the average PM emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (11.05 lb/hr).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary dryer is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

Fugitive particulate emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 10% opacity on a 6 minute block average basis.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per year without prior approval from the Department. The facility shall only process virgin oil-contaminated soil material without prior approval from the Department.

B. Concrete Batch Plant

To meet the requirements of BPT for control of PM emissions from the cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse is limited to no greater than 5% opacity on a 6 minute block average basis.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a 6 minute block average basis.

C. Rock Crusher

The secondary rock crusher was manufactured prior to 1973 with a rated capacity of 175 tons/hour. The secondary rock crusher is not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of BPT for control of PM emissions from the rock crushers, Lane shall operate and maintain water sprays on the rock crushers. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis.

D. Diesel Units

The Diesel Generator and Genset 1 power the portable rock crushers and asphalt plant.

BPT for the diesel units is the following:

Total fuel use in the diesel units (Diesel Generator, and Genset 1) shall not exceed 36,000 gallons/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content of 0.5% by weight and is therefore considered to be receiving BPT.

A summary of the BPT analysis for each of the pollutants is discussed below:

1. Chapter 106 regulates fuel sulfur content, however the use of 0.5% sulfur by weight fuel is more stringent and shall be used.
2. PM, PM₁₀, SO₂, NO_x, CO and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.
3. Opacity from the Diesel Generator and Genset 1 shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

E. Stock Piles and Roadways

BPT for all potential sources of fugitive PM emissions, including material stockpiles and roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, on a 3 minute block average basis.

F. Facility Emissions and Fuel Use Caps

- 750,000 gallons per year #2 fuel oil (0.5% sulfur by weight maximum) or specification waste oil, (0.7% sulfur by weight maximum) in the rotary kiln
- 36,000 gallons per year diesel fuel, (0.5% sulfur by weight maximum) in the diesel units

(all based on a 12 month rolling total)

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Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/year
PM	6.8
PM ₁₀	6.8
SO ₂	38.3
NO _x	33.4
CO	11.5
VOC	6.9

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Lane is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-49-71-F-N, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

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- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. \ 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

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- a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

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(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

(16) **Asphalt Plant**

- a. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.
- b. The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary dryer is operating:
 1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.
- c. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location.
- d. Opacity from the baghouse is limited to no greater than 20% on a 6 minute block average basis, except for no more than 2 six minute block averages in a continuous 3 hour period.
- e. Fugitive PM emissions from the asphalt operation shall be controlled so as to prevent visible emissions in excess of 10% opacity on a 6 minute block average basis.
- f. Fuel use records and receipts for the asphalt rotary dryer shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil in the dryer.
- g. The asphalt rotary dryer shall be limited to a maximum of 96.0 MMBtu/hr heat input. Lane shall be limited to the use of 750,000 gal/year of #2 fuel oil (0.5% sulfur maximum) and specification waste oil (0.7% sulfur maximum) (12 month rolling total) in the rotary dryer. Emissions from the baghouse shall not exceed the following:

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<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	11.05
PM ₁₀	0.03	11.05
SO ₂	n/a	67.68
NO _x	n/a	40.80
CO	n/a	16.56
VOC	n/a	11.04

- h. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per year without prior approval from the Department. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
 - i. Without prior approval from the Department, the licensee shall only process virgin oil-contaminated soil material.
 - j. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.
 - k. When processing petroleum contaminated soils, the licensee shall maintain records which specify the quantity and type of contaminant in the soil, the origin of the soil and the contaminant, and the characterization of the contaminated soil. In addition, when processing contaminated soil, the licensee shall maintain records of processing temperature, asphalt feed rate, fuel use, average soil moisture content, and dryer throughput, on a daily basis.
- (17) **Concrete Batch Plant**
- a. Particulate emissions from the cement silo shall be vented through a baghouse and all components of the batch plant shall be maintained so as to prevent PM leaks.
 - b. To document maintenance of the cement silo baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the concrete batch plant location.
 - c. Opacity from the cement silo baghouse is limited to no greater than 5% on a 6 minute block average basis.
 - d. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a 6 minute block average basis.
- (18) **Rock Crushers**
- a. Lane shall operate and maintain spray nozzles for particulate control on all rock crushers. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis.
 - b. Lane shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location.

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- c. Lane shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the rock crushers. The operation log shall be kept on-site at the rock crushing location.

(19) Diesel Units

- a. Fuel use records and receipts for the diesel units shall be maintained for at least six years and available to the Department upon request.
- b. Lane shall not exceed the total use of 36,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.5% by weight. Emissions from the diesel units shall be limited to the following:

<u>Pollutant</u>	<u>Diesel Drive lb/hr</u>	<u>Genset 1 lb/hr</u>
PM	0.65	0.53
PM ₁₀	0.65	0.53
SO ₂	1.06	0.86
NO _x	9.26	7.50
CO	2.00	1.62
VOC	0.74	0.60

- c. Visible emissions from the diesel units shall not exceed 30% opacity on a 6 minute block average, except for no more than 2, six minute block averages in a continuous 3 hour period.

(20) Stockpiles and Roadways

Potential sources of fugitive PM emissions including material stockpiles and roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, on a 3 minute block average basis.

(21) Equipment Relocation

- a. Lane shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

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The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (22) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.
- (23) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 1999.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 06, 1999

Date of application acceptance: July 12, 1999

Date filed with the Board of Environmental Protection: _____

This order prepared by Mark E. Roberts, Bureau of Air Quality.